

ABSTRACT

A speed reduction system for decreasing the speed of a moving craft has a craft engaging device, a control mechanism, and a hydraulic energy transfer system adapted to transmit energy from the craft engaging device to the control mechanism. The control mechanism is adapted to actively control release of energy from the hydraulic energy transfer system during the decrease of the speed of the craft. A method of controlling the operation of a valve includes adjusting the valve during the operation of the valve after comparing a condition to a desired condition determined by a profile. A hydraulic valve has a valve member defining passages arranged to balance the force of the fluid pressure acting on the valve member and an actuator connected to the valve member. A valve control system includes a controller and a driver arranged with the controller. The position of the valve is adjusted during a predetermined cycle to control the operation of the valve.